

THIS IS A RESPONSE TO THE COMMENT POSTED BY PER PETTERSSON-LIDBOM ON  
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It is true that the first-stage estimate starts to vary a lot when using high-order polynomials with the two narrowest bandwidths or with bandwidths smaller than 5, something we also acknowledge in footnote 25. We interpret this as being the result of small sample properties of the regression kink (RKD) estimator. Few observations close to the cut off can be problematic also in regression discontinuity designs (RDD). But because identification in the RKD comes from a discrete change in the slope around the cut off (as opposed to in the intercept), intuitively, the RKD is likely to be even more sensitive to small bandwidths when there is limited data. This intuition is supported by Monte Carlo simulations in Ando (2013), who finds that the introduction of a higher-order polynomial or a smaller bandwidth often yields imprecise and biased RKD estimates in small samples.

Together with the evidence in Figure 4, which shows the graphical version of the first stage, we therefore feel rather confident that the first-stage estimations in the paper indeed isolate exogenous variation in grants stemming from the kinked assignment rule. However, it can be noted that the RKD is a relatively new estimator that have not yet been extensively applied, and there is certainly a need for more studies analyzing the small sample properties of this estimator.

Ando, M (2013) "How much should we trust the regression-kink-design estimates?", Working paper 2013:22, Department of Economics, Uppsala University